1950

CALHOUM AND BATCHTOWN REFUGES
NARRATIVE REPORT
JAMUARY, FEBRUARY, MARCH, APRIL, 1950

I. GENERAL

A. Weather Conditions:

This was a warmer spring than 1949, with maximum temperatures higher in every month but February, which had 90 lower reading than 1949. The minimum temperatures were lower every month but Jamuary, which had minimum reading of 110 above, compared with 10 above in 1949. Rainfall for the period was .28 greater than last year, but January 1949 had 7.11° compared with 4.19° this year.

Relative readings are shown below:

Month	Year	Maximum	Minimum	Precipitation
January	1949	68	1	7.11
	1950	75	17	4.18
February	1949	65	16	3.24
Lant and 3	1950	56	10	3.59
March .	1940	74	16	2.18
Mark Att	1950	81	12	2.87
Amend 7	1949	67	35	.24
April	1950	75	25	2.40
			1949 Total	12.77
			1950 Total	

Precipitation was .28 greater than 1949 and 3.44 more than 1948.

B. Water Conditions:

The river stages were about the same as last year. There was no high water this period.

The fluctuation in pool levels due to dam manipulation was not too bad on the Illinois River this spring, but there was a big drawdown on the Batchtown area all winter and part of this spring. Very few ducks used this area on account of the low water.

The comparison of pool levels with same period in 1949 is shown below:

JAN APR 1950

		1949	1950				
Month	High	Low	Difference	High	Low	Difference	
January	16.3	14.8	1.5	16.0	15.0	1.0	
February	16.4	15.4	1.0	16.0	14.5	1.4	
March	16.3	14.5	1.8	16.0	14.6	1.2	
April	16.1	15.6	.5	16.9	15.7	1.2	

Maximum monthly variation in 1950 was la4' compared to la8' in 1949. Water levels this year can be Considered favorable, with fairly stable conditions obtaining throughout the period.

II. WILDLIFE

1. Pepulations and Behavior: (a) Waterfowl:

The peak concentration this year was reached in January for the earliest peak recorded in several years. The peak concentration this year was reached on January 25, compared to Narch 5 in 1949.

January peaks for the past few years show this year's peak of 285,000 to be somewhat shead of the January 1949 peak of 200,000; and the 110,000 peak in January 1948.

Ducks did not leave the area this year as they have sometimes done in the past. So doubt the open winter influenced birds to remain in the vicinity, for ducks were common in the area throughout the winter.

Duck movements north occurred earlier this year than in the past. This is demonstrated by the earlier peak in January this year compared to March in 1949.

The total duck flight was low this year compared with 1949. During 1949 total waterfowl usage during the period was 384,006, compared to 356,125 during the same period this year.

No lend poisoning losses were noted this year.

(b) Geese

Your. Canada goese showed a big increase this year over last your. The yeak concentration this year was 10,000 compared to

Charles Court building to de the Soul

1,082 last year. In 1948 we had 150 using the area. The big concentration of Canada goese only stayed one day, but like the ducks we had not less than 200 Canada goese all winter.

Snow goese showed an increase this year over last year, with a peak concentration of 5,000 this year compared with 2,500 last year and the 1948 total of 500.

Blue goese also increased during the period, with a total of 5.000 compared with last year's 2,500, and 1948's total of 500. Blue and snow goese were here all winter feeding in cornfields adjacent to refuge.

(c) Shorebirds and Other Water Birds:

Wilson snipe are increasing in the area. It is estimated that about 100 went through the area during the period. Killdeer were here in big numbers during the month of February.

Blue heron are low this year. Only 300 are now in the area compared with 2,000 last year at this time.

2. Food and Covers

S. Link

1

Food and cover was very good in this area. Ducks stayed all winter, indicating that there was plenty of food for them. There were more cornfields picked with machines, leaving many times more corn in fields than ducks and goese could use. Low water this year is favorable for a good crop of duck field this year.

D. Fur Animale: (a) Maskrat:

Maskrats in the closed areas are increasing some, but their habitat is too limited to encourage any big numbers of this species. Outside of the closed areas the trappers took them down protty close. The muskrat is about the same as last year.

(b) Mink:

Mink signs are showing up very good, and it is thought that a good number were left after the fur season was over. It is estimated they are in numbers about the same as last year.

(c) Skunk:

Home of this species were observed during the period. The habitat for skunk in this area is not very good since most of the area is subject to overflow.

(d) Ruccoon:

Raccoon signs are general throughout the bottoms, and the low take during the past season is an indication that this species may continue to increase during the coming year.

(e) Beaver:

Beaver signs are showing in most island@ along the Mississippi River and the Illinois River. All indications are that this species is on the increase in this area.

E. Predaceous Birds:

Bald eagles were down this year compared with last year. An estimated 60 used the area last year, but only 30 were seen this year. All have left the area now.

Red-tailed hawks are observed daily, and no decided change in this species was observed.

Turkey vultures are observed daily, with an estimated 40 using the area compared with 55 last year.

F. Pish:

Pishing has not really started as yet, but some of the cold weather fishermen have brought in some good catches of crappie and bass. Pishing pressure by pole and line fishermen is increasing. The boat liveries are looking forward to a big season as the State of Illinois has lowered the non-resident livense fee to \$2.00.

III. REFUGE DEVELOPMENT AND MAINTENANCE

A. Physical Development:

Mothing to report under this as poeting will be done during the next period. The signs went through the winter well as we had no ice and no high water.

VI. PUBLIC RELATIONS

A. Recreational Use:

A goodly number of fishermen used the area the last part of the period, and boating is getting started in the area.

C. Refuge Participation:

The local refuge manager attended the following meetings:

Batchtown Sportemen's Club in regard to public hunting ground. Mr. Clos and Mr. Thatcher from the State Department were there.

Waterfowl hearing at St. Louis, Missouri, with Dr.Cottam and Mr. Janzen in charge.

E. Fishing:

Commercial fishing was poor during the first part of the period, but during the last part of the period it was good and like last year the market is flooded.

P. Violations:

Illinois

One apprehension for possessing 2 mallard ducks resulted in a fine of \$25.00 and costs of \$4.00 in State court.

One apprehension for possessing 2 mallard ducks resulted in a fine of \$25.00 and costs of \$4.00 in State court.

Superintendent of Refuges

May 8, 1950

WATERFOWL

	(1) Species	(2) First		(3) Peak Conce	ntration	(4) Last Se	en	Young Pr	oduced	(6) Total
	Common Name	Number	Date	Number	Date	Number	Date	Broods Seen	Estimated Total	Estimated for Period
I.	Swans:	Number .	1,000							
	Whistling swan	a with the con-			. '					
•	Geese:	200	1/8	10,000	5/28	200	5/20			10,000
•	Canada goose Cackling goose						e general			
	Brant			in 4500	3/20	10	4/28			3,000
,	Snow goose	100	1/8	5,000 8,000	3/20	50	4/13			5,000
	Ducks:					100				185,000
•	Mallard	10,000	1/5	135,000	5/20 5/11	100	8/24			6,000
	Black duck Gadwall	100	1/24	100	5/11 5/2*	100	23.			100 100
	Baldpate Pintail	100	3/24 3/24 1/28	160,000	2/23	1,000	8/24			140,000
	Green-winged teal Blue-winged teal	25	8/11	5,000	4/10	· \$,000	4/112			5,000
	Cinnamon teal	300	3/11	5,000	8/90	200	4/2.2			- 3,000 800
	Shoveller Wood duck	100	2/17	100	3/14 2/27	100	4/1.2 5/10			
	Redhead Ring-necked duck	200	1/20	3,000	2/18 8/17	1,009	8/11			\$,000 \$,000
٠.	Canvas-back Scaup	800 800	1/18	8,000 20,000	3/10	100	4/12			20,000
	Golden-eye Buffle-head	200	2/23	200		10	1			
	Ruddy duck	20	4/6	25	4/13	, 25	4/18			
			- 4		4/6	1,009	4/12			4,00
٧.	Coots	100	3/24	4,000	70		of a get	part vistig s		. Lingue de la libraria

3-1750 (July 1946)

(over)

Form NR-1

7795.23	SUM	ARIES		Marine Paris
Total Production:				
Geese		Total waterfowl usage du	ring periodes 198	
Ducks_		Peak waterfowl numbers_	356,126	
(aCoots		Areas used by concentrat	ions strong, Swan, Gill	tert,
िराज्यात् । स्वतः । स्वतः । स्वतः । स्वतः । स्वतः । स्वतः । स्वतः । स्वतः ।		Principal nesting areas		7400T
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Of Chamos Seed.	And the state of t	Reported by	Edward A. Davis	
्रियम् । अस्ति । विक्रम्पर । द्वारासकाः अस्ति । विक्रम्पर	INSTRUCT	TONS		
(1) y Species: (Mag) 646 (2) First Seen:	In addition to the birds listed of reporting period should be added given to those species of local at the first refuge record for the speriod, and the number seen. This	in appropriate spaces. Ind National significance species during the season	• concerned in the repo	
(3) Peak Concentra-	The greatest number of the specie		"	
(4) Last Seens	The last refug e recer d for the speriod.	pecies during the season	concerned in the repor	'ting
(5) Young Produced:	Estimated number of young produce sentative breeding areas. Brood 10% of the breeding habitat. Est	counts should be made on	two or more areas age	grega crug
(6) Total:	Estimated total number of the spenary or may not be more than that of the migrational movement.	ecies using the refuge du used for peak concentrat	ring the period. This ions, depending upon	figure the nature

Note: Only columns applicable to the reporting period should be used. It is desirable that the <u>Summaries</u> receive careful attention since these data are necessarily based on an analysis of the rest of the form.

WATERFOUL

nicount Refuge of Batchten outy columns **(6)**: (5) (4) (3) (2) (1) Total Last Seen Young Produced Peak Concentration First Seen Species | Estimated Estimated Broods for Period Seen Date Date Number Number Number Date Common Name Swane: Whistling swan Due to the drawloom of this pool ducks did not use the area this suring. He Geese: Canada goose Cackling goose Brant White-fronted goose Show: Boose Care Care Blue goose III. Ducks Mallard Black duck Gadwall Baldpate ::: Pintail Green-winged teal Blue-winged teal Cinnamon teal Shoveller 3. Wood duck Redhead Ring-necked duck Canvas-back Scaup Golden-eye Buffle-head Ruddy duck Coots

3-1750 (July 1946)

(over)

Form NR-1

Geese				1			
	1	Total	waterfowl	usage duri	ng period	: · · ·	
Ducks		Peak	waterfowl	numbers			
Coots	1.	Areas	used by c	oncentration	ons		
Andrew Control				! :			
Calcula Calculation of double Calculation of the particle		Princ	ipal nesti	ng areas t	nis season		<u> </u>
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ก ผู้รู้ผู้สะตอกน จุระชาก - พระกรณะสมคิดสายกระชาก					•		
Compose appling sect	INS	TRUCTIONS					
rep giv (2) First Seen: The	addition to the birds listorting period should be a en to those species of lo	dded in app cal and Nat the species	ropriate s ional sign during th	paces. Spaificance.	oncerned i	ntion shoul n the repor	ld be
per	iod, and the number seen.	This colu	mn does no	t apply to	resident	species.	
	greatest number of the s	pecies pres	ent in a l	limited int	erval of t	ime.	
deliver beste per	last refuge pecerd for t iod. imated number of young pr		and the second of the second o				

Note: Only columns applicable to the reporting period should be used. It is desirable that the Summaries

receive careful attention since these data are necessarily based on an analysis of the rest of the form.

of the migrational movement.

sentative breeding areas. Brood counts should be made on two or more areas aggregating 10% of the breeding habitat. Estimates having no basis in fact should be omitted.

Estimated total number of the species using the refuge during the period. This figure may or may not be more than that used for peak concentrations, depending upon the nature

发生在1960年1976)。

(6) Total:

3-1751 Form NR-1 (Nov. 1945)

MIGRATO BIRDS (other than waterfowl)

Refuge Calboun

Months of January to April

April 19

(3) Peak Numbers (2) First Seen (4) (5) (6) (1) Production Total Last Seen Species Number | Total # Total Estimated Number Colonies <u>Nests</u> Young Number Common Name Number Date Number Date Date I. Water and Marsh Birds: $\{f_1\in N_1^*\}$ 1/25 3/23 4/12 4/12 **4**∕12 **4**∕22 300 200 300 200 200 II. Shorebirds, Gulls and Terns: 4/12 1/3 2/28 2/26 Sulle 5,000 2,000 150 500 60 5,000 Torns 2,000 10 (over)

(1)	(2)	(3)		(5)	(6)////
III. <u>Doves and Pigeons</u> : Mourning dove	01			(41.1)	(1.05)
White-winged dove					
IV. <u>Predaceous Birds</u> : Golden eagle		Ì			
Duck hawk Horned owl Magpie					
Raven Crow	large maber es e	rews here all the	time.		
				d by Bionra A. Davis	;

(1) Species:

Use the correct names as found in the A.O.U. Checklist, 1931 Edition, and list group in A.O.U. order. Avoid general terms as "seagull", "tern", etc. In addition to the birds listed on form, other species occurring on refuge during the reporting period should be added in appropriate spaces. Special attention should be given to those species of local and National significance. Groups: I. Water and Marsh Birds (Gaviiformes to Ciconiiformes and Gruiiformes)

II. Shorebirds, Gulls and Terns (Charadriiformes)

III. Doves and Pigeons (Columbiformes)

TV. Predaceous Birds (Falconiformes, Strigiformes and predaceous Passeriformes)

(2) First Seen: The first refuge record for the species for the season concerned.

(3) Peak Numbers: The greatest number of the species present in a limited interval of time.

(4) Last Seen: The last refuge record for the species during the season concerned.

(5) Production: Estimated number of young produced based on observations and actual counts.

(6) Total: Estimated total number of the species using the refuge during the period concerned.

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3-1752 Form -2 (April 1946)

UPLAND GA BIRDS

1613

Months of January RefugeCalhoun (3) Young Produced (4) Sex Ratio (l) Species (2) Density (5) Removals (6) Total (7) Remarks Number broods obs'v'd. Estimated Total For Research For Restocking Estimated Hunting Pertinent information not specifically requested. List introductions here. number Acres using Cover types, total per acreage of habitat Bird Percentage Refuge Common Name lor thin:

INSTRUCT.

Form NR-2 - UPLAND GAME BIRDS. *

(1) SPECIES:

Use correct common name.

(2) DENSITY:

Applies particularly to those species considered in removal programs (public hunts, etc.). Detailed data may be omitted for species occurring in limited numbers. Density to be expressed in acres per animal by cover types. This information is to be prefaced by a statement from the refuge manager as to the number of acres in each cover type found on the refuge; once submitted, this information need not be repeated except as significant changes occur in the area of cover types. Cover types should be detailed enough to furnish the desired information but not so much as to obscure the general picture. Examples: spruce swamp, upland hardwoods, reverting agriculture land, bottomland hardwoods, short grass prairie, etc. Standard type symbols listed in Wildlife Management Series No. 7 should be used where possible. Figures submitted should be based on actual observations and counts on representative sample areas. Survey method used and size of sample area or areas should be indicated under Remarks.

(3) YOUNG PRODUCED:

Estimated number of young produced, based upon observations and actual counts in representative breeding habitat.

(4) SEX RATIO:

This column applies primarily to wild turkey, pheasants, etc. Include data on other species if available.

(5) REMOVALS:

Indicate total number in each category removed during the report period.

(6) TOTAL:

Estimated total number using the refuge during the report period. This may include resident birds plus those migrating into the refuge during certain seasons.

(7) REMARKS:

Indicate method used to determine population and area covered in survey. Also include other pertinent information not specifically requested.

^{*} Only columns applicable to the period covered should be used.

3-1754 Form N 1 (June 1945)

Refuge_Calhoun

Year ending April 30, 1950

(1) Species	Density	rae Table	, , t.	Remo	3) Vale	hada (Vr.) () () () () () () () () () ((4) d ion of			4 H 1 1 1 1 4	(5)
1988 1988 - 1988	, i figo visto il directorio. Li storio El religio di il discono di			, , j.	± 			Shar	e Trapp	ing	Refuge Shipped	Donated		Popula-
Common Name	Cover Types & Total	Acres Per Animal	Hun ting	Fur Harvest	Predator Control	For Re- stocking	For Re-	Permit Number	Trappers Share	Refuge share	Total Ref Furs Ship	Furs Done	Firs Destroyed	tion /
Hackrat High An Fox Raccoon Bl Hager And					4									1800 86 40 800
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The same agent to nativised	towns a markety process for the		: : : : : : :									3		

REMARKS:

Reported by

Form NR-4 - SMALL MAMMALS (Include data on all species of importance in the management program; 1. e., muskrats, beaver, coon, mink, coyote. Data on small rodents may be omitted except for estimated total population of each species considered in control operations.)

Jan. (1)

 $\langle \mathbb{C} \rangle$

ar⊈*n*go₹

Use correct common name. Example: Striped skunk, spotted skunk, shorttailed weasel, gray squirrel, fox squirrel, white-tailed jackrabbit, etc. (Accepted common names in current use are found in the "Field Book of North American Mammals" by H. E. Anthony and the "Manual of the Vertebrate Animals of the Northeastern United States" by David Starr Jordan.)

DENSITY: (2)

Applies particularly to those species considered in removal programs. prosent models 2 Detailed data may be omitted for species occurring in limited numbers. Density to be expressed in acres per animal by cover types. This information is to be prefaced by a statement from the refuge manager as to the number of acres in each cover type found on the refuge; once submitted, this information need not be repeated except as significant changes occur in the area of cover types. Cover types should be detailed enough to furnish the desired information but not so much as to obscure the general picture. Examples: spruce swamp, upland hardwoods, reverting agriculture land, bottom land hardwoods, short grass prairie, etc. Standard type symbols listed in wildlife Management Series No. 7 should be used where possible. Figures submitted should be based on actual observations and counts on representative sample areas. Survey method used and size of sample area or areas should be indicated under Remarks.

REMOVALS:

Indicate the total number under each category removed since April 30 of the previous year, including any taken on the refuge by Service Predatory Animal Hunter. Also show any removals not falling under headingslisted.

DISPOSITION OF FUR:

On share-trapped furs list the permit number, trapper's share, and refuge share. Indicate the number of pelts shipped to market, including furs taken by Service personnel. Total number of pelts of each species destroyed because of unprimeness or damaged condition; and furs donated to institutions or other agencies should be shown in the column provided.

TOTAL POPULATION:

Estimated total population of each species reported on as of April 30.

REMARKS:

Indicate inventory method(s) used, size of sample area(s), introductions, and any other pertinent information not specifically requested.

116007

na kolagia.

		•	\$ 100 miles 100 Miles			
Made	al Production:			SUMMARIES		
	Geese			Total waterfowl usage	during period	350
ing Pertuit Territoria	Ducks 158	•		Peak waterfowl number	`s	350
	Coots	· · · · · · · · · · · · · · · · · · ·		Areas used by concent	rations sontter	ed over area
a e			•	Principal nesting are	eas this season	well scattered over
ing Section					1	area
				Reported by	уЕ.	V. Pierce
· <u>-</u>		,	TN/S*	TRUCTIONS		4.1
	Species: First Seen:	reporting perigiven to those	iod should be a species of lo	ted on form, other species ided in appropriate spaces cal and National signification the species during the sea This column does not app	 Special attent nce. son concerned in 	the reporting
(3)	Peak Concentra- tion:	The greatest r	number of the s	pecies present in a limite	d interval of tim	18.
(4)	Last Seens	period.		he species during the seas		•
(5)	Young Produced:	contative bree	eding areas. F	oduced based on observation rood counts should be made Estimates having no basi	on two or more a	ricas aggrega orug
(6)) Total:	may or may no	al number of th t be more than ional movement.	e species using the refuge that used for peak concent	during the periodications, depending	od. This figure ng upon the nature
Not	te: Only columns ap	oplicable to the	e reporting per	iod should be used. It is	desirable that that the analysis of the	the <u>Summaries</u> rest of the rm.

3-1751 Form NR-1 (Nov. 1945)

MIGRAT(BIRDS

(other than waterfowl)

Months of April 11 to August 8, 19450.

W HIRDS (Other than waterfowl) Refuge Keithsburg

Common Name Number Date Number Date Number Colonies Nests Your	
Common Name Number Date Number Date Number Date Colonies Nests Your I. Water and Marsh Birds: Great blue heron here 25 8/8 Cormorant here 20 4/11 6 8/8	Estimated Number 25 20
Common Name Number Date Number Date Colonies Nests Your I. Water and Marsh Birds: Great blue heron here 25 8/8 Cormorant here 20 4/11 6 8/8	Number 25 20
I. Water and Marsh Birds: Great blue heron here 25 8/8 Cormorant here 20 4/11 6 8/8	25 20
Great blue heron here 25 8/8 Cormorant here 25 4/11 6 8/8	25 20
Great blue heron here 25 8/8 Cormorant here 25 4/11 6 8/8	2 5 20
Great blue heron Cormorant American egret here 4 6/15 8/8 4/11 6 8/8	· 20
Cormorant American egret here 4 6/15 40 8/8	20 40
American egret 4 6/15 40 8/8	40
	· ·
	ar a service and are a service and
	(4)
TT Characteria Cultura and	
II. Shorebirds, Gulls and Terns:	
Horring gulls here 50 4/11 10 8/8	50
	€.
(over)	

<u></u>	(2	2) [] [(3	3)				(5)		(6)
III. <u>Doves and Pigeons</u> : Mourning dove White-winged dove	here		60	3/1	60	8/8		8	32	60
IV. <u>Predaceous Birds</u> : Golden eagle	in en				-					
Duck hawk Horned owl Magpie	here		6	8/8				, ptp.	5 - 44 - 15 S	******* 6 *******
Raven Crow	here		200	9∕ 8					80	200
		• .		:						
			1 f	! .		Reporte	d by	E. V. Pie	rge	

INSTRUCTIONS

(1) Species:

Use the correct names as found in the A.O.U. Checklist, 1931 Edition, and list group in A.O.U. order. Avoid general terms as "seagull", "tern", etc. In addition to the birds listed on form, other species occurring on refuge during the reporting period should be added in appropriate spaces. Special attention should be given to those species of local and National significance. Groups: I. Water and Marsh Birds (Gavilformes to Ciconilformes and Gruilformes)

II. Shorebirds, Gulls and Terns (Charadriiformes)

III. Doves and Pigeons (Columbiformes)

IV. <u>Predaceous Birds</u> (Falconiformes, Strigiformes and predaceous Passeriformes)

(2) First Seen:

The first refuge record for the species for the season concerned.

(3) Peak Numbers: The greatest number

The greatest number of the species present in a limited interval of time.

(4) Last Seen:

The last refuge record for the species during the season concerned.

(5) Production:

Estimated number of young produced based on observations and actual counts.

(6) Total:

Estimated total number of the species using the refuge during the poriod concerned.

3-1752 Form 1 2 (April 1946)

Refuge

UPLAND GATEBURDS

April 11- to August 8 Months of_ Keithsburg

	•		UPL	AND GAME BIRI	os .		
(1) Species	(2) Density		(3) Young Produced	(4) Sex Ratio	(5) Removals	(6) Total	(7) Remarks
Common Name	Cover types, total acreage of habitat	Acres per Bird	Number broods obs'v'd. Estimated Total	Percentage	Hunting For Restocking For	Estimated number using Refuge	Pertinent information not specifically requested. List introductions here.
Bob-white quail	Approx. 200 acres farmland, 200 acres reverting farmland 100 acres brush an slough margin	Ļ				20	

INSTRUCT

Form NR-2 - UPLAND GAME BIRDS.*

(1) SPECIES:

Use correct common name.

(2) DENSITY:

Applies particularly to those species considered in removal programs (public hunts, etc.). Detailed data may be omitted for species occurring in limited numbers. Density to be expressed in acres per animal by cover types. This information is to be prefaced by a statement from the refuge manager as to the number of acres in each cover type found on the refuge; once submitted, this information need not be repeated except as significant changes occur in the area of cover types. Cover types should be detailed enough to furnish the desired information but not so much as to obscure the general picture. Examples: spruce swamp, upland hardwoods, reverting agriculture land, bottomland hardwoods, short grass prairie, etc. Standard type symbols listed in Wildlife Management Series No. 7 should be used where possible. Figures submitted should be based on actual observations and counts on representative sample areas. Survey method used and size of sample area or areas should be indicated under Remarks.

- (3) YOUNG PRODUCED:
- Estimated number of young produced, based upon observations and actual counts in representative breeding habitat.
- (4) SEX RATIO:
- This column applies primarily to wild turkey, pheasants, etc. Include data on other species if available.
- (5) REMOVALS:
- Indicate total number in each category removed during the report period.
- (6) TOTAL:
- Estimated total number using the refuge during the report period. This may include resident birds plus those migrating into the refuge during certain seasons.
- (7) REMARKS:
- Indicate method used to determine population and area covered in survey. Also include other pertinent information not specifically requested.
- * Only columns applicable to the period covered should be used.



CALHOUN AND BATCHTOWN REFUGES
NARRATIVE REPORT
MAY, JUNE, JULY, AUGUST, 1950

I. GENERAL

A. Weather Conditions:

This was a cooler summer than in 1949, with minimum temperatures lower in every month during the period. Nights were very cool compared with the same time last year. Rainfall for the period was 5.81" compared with 18.11" last year. It was much drier in June, July, and August. Relative readings are shown below:

Month	Year	Maximum	Minimum	Precipitation
May	1949	92	43	3.26
	1950	92	41	3.03
June	1949	94	53	7.30
ound	1950	97	50	2.00
July	1949	99	61	7.36
OULS	1950	93	50	.47
August	1949	96	57	.19
Augus	1950	88	53	.31
			1949 T	otals 18.11
			1950 T	otals 5.81

B. Water Conditions:

The river stages were higher this year compared with 1949. Two periods of high water occurred in May and June, causing some damage to farmers along the low areas. High water caused a delay in development of waterfowl foods along the river.

The high reading for the summer of 1949 was 16.1 compared to 19.0' this season.

Fluctuating pool levels due to dam manipulations was about the same as last year. Lots of complaints were heard from fishermen. The low water during July and August has favored plant life and the prospects look very good.

The comparison of pool levels with the same period in 1949 is shown below:

MAY AUG 1950

	1949	1950				
Month	High	Low	Difference	lligh	Low	Difference
May	15.5	14.6	.9	18.6	15.6	3.0
Jun e	15.8	14.8	1.0	19.0	15.3	3.7
July	16.1	14.9	1.2	15.8	14.9	.9
August	15.9	14.8	1.1	15.6	15.0	•6

Maximum monthly variation in 1949 was 4.2 compared with 8.2 this year. Water levels this year can be considered favorable, with fairly stable conditions during July and August.

II. WILDLIFE

A. Migratory Birds:

1. Populations and Behavior:

(a) Waterfowl:

Teal, scaup, and most mallards remained in the area until late in May. All that remained during the summer months were wood ducks, with a very few mallards. Wood ducks were fewer than last year, both as to adults remaining and young produced. This year a total of 47 wood duck broods were seen, with 491 young. In 1949 a total of 89 broods were seen, having 837 young.

Only one brood of mallards was observed this year, with 6 young. In 1949 three broods, having 29 young, were seen. This difference is so slight as to be insignificant, however.

A comparison of the breeding seasons of 1949 and 1950 is shown in the following table:

	Brood	s Seen	Young Seen		
Species	1949	1950	1949	1950	
Wood duck	89	47	837	491	
Mallards	3	1	29	6	
Totals	92	48	866	497	

(b) Goeso:

Geese had left the area by the beginning of this report period.

(a) Swans:

No swans were observed during the period.

(d) Egrets:

Egrets are present in the area in fairly good numbers, although much reduced over last year. An estimated 600 are now using the area, while in the 1949 season 1600 were found. No egrets were observed nesting in the district this year, while in the past nesting has occurred commonly. Last year 75 nested here.

(e) Shorebirds:

A goodly number of shorebirds were observed during the early part of the period. Wilson snipe were about the same as last year, but killdeer showed a definite increase.

(f) Other Water Birds:

Great blue herons showed a decrease this year, with only an estimated 150 in the area, compared to 221 in 1949. None were observed nesting here this season, although they normally are common nesters. Last year 100 nested here.

2. Food and Cover:

Food and cover looks very good in all the areas.

American pondweed has come in better than ever this year, and big beds of it are found in the Swan Lake and Stump Lake areas. Pond lily in Stump Lake has made good growth. Sago is looking good in Pool 26, while sagittaria has made good growth along the river margins.

In the Batchtown area vegetation was slow in starting due to prolonged high water, but, while late, it is expected to mature to the point where it will equal last year. Smartweeds with some millet makes up the bulk of food in this portion of the district.

B. Upland Game Birds:

None were observed on refuge land as areas are mostly water and marsh, with little upland habitat.

C. Big Game Animals:

Two deer were observed on Portage Island, and two on the west side of Swan Lake. This is the first time deer have been seen in this area in recent years.

D. Fur Animals: (a) Muskrats:

Muskrat signs are about the same as last year, and no decided change in this species is noted.

(b) Mink:

Several litters of mink have been observed this summer. This species is showing some increase.

(c) Skunk:

No signs of skunk have been seen on the refuge this year.

(d) Beaver:

Beaver are on the increase in this area. Signs are showing up on many of the islands on the Mississippi and the Illinois Rivers. Most of them are bank beaver.

(e) Otter:

None have been observed here.

(f) Raccoon:

Raccoon sign is general throughout the area, and the general opinion is that this species is still on the increase. Several have been observed during the day.

(g) Foxes:

Foxes are here in big numbers. Many complaints are received from farmers losing poultry. The county is still paying bounty on them.

E. Predaceous Birds:

Red-tailed hawks are observed almost every day. It is believed this species is about the same as last year.

Turkey vultures showed some increase. Forty were seen this year, compared to 29 last year.

F. Fish:

In the early part of the period fishing was fair. It has been spotty all summer, with some good catches of crappie

and bluegill observed. Bass fishing was poor all summer, with no good catches observed. Fishing pressure is continually increasing in this area, and boat liveries have enjoyed a good business this summer.

III. REFUGE DEVELOPMENT AND MAINTENANCE

A. Physical Development:

A new closed area was posted on Portage Island and its towheads during this period. The Gilbert Lake, Swan Lake, and the Batchtown closed areas have all been reconditioned. Closed area lines required considerable brushing this summer, but no signs were lost in the areas. The closed area boundary lines will be checked shortly before the hunting season to make sure that all signs are in place and in good condition.

Boat 628 was painted and repair was made on one bad rib. The 21 foot boat was painted early this spring, and last part of July it was painted again.

B. Plantings:

4. Cultivated Crops:

Eight permits for sharecropping were issued during the period as follows:

Permittee	Address	Acres	ŭse -
John Sherman	Grafton, Ill.	3Û	oorn
August Toppmeyer	Deer Plain, Ill.	10	bean s
Robert La Marsh	Deer Plain, Ill.	6	beans
Henry C. Weigal	Golden Eagle, Ill.	20	corn
W. F. Duncan	Grafton, Ill.	6	corn
H. G. Bimslager	Golden Eagle, Ill.	80 co	n, beans
Joehavarre	Deer Plain, Ill.	6	corn
John Held	Brussells, Ill.	8	beans

There are not very good prospects for a good crop as farmers were held up due to the high water in June and all crops were late.

VI. PUBLIC RELATIONS

A. Recreational Use:

A lot of camping, fishing, boating, swimming, and pionicking was done on both the Illinois and Mississippi Rivers during the period. Pleasure boating is increasing on Pool 26, with many new boats appearing this year.

E. Fishing: 1. Sport:

A lot more fishermen used the area this year, but their success was not as good as last year. The bulk of the catches were crappie and blue gill. Bass fishing was not good.

2. Commercial:

Commercial fishing has been good throughout the period, and lots of it goes on in this area. Catfish are more plentiful this year and are bringing a good price.

Superintendent, Upper Mississippi River Wildlife and Fish Refuge.

September 1, 1950.

Approved SEP 6 1950 (Date)

Regional Director

· 7:	none Refuge of Co	(2) Seen	(3) Peak Conce		(4) Last Se		Young Pr	oduced	Total
	Species Common Name	Number	Date	Number	Date	Number	Date	Broods Seen	Estimated Total	Estimated for Period
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i.	Cinnamon teal	1					1	47	491	491
i. Var	Shoveller Wood duck	6	6/5	491	7/7	4	8/8	46		
	Redhead Ring-necked duck									La companya di serie da se
	Canvas-back					Right y a sa	De Constant T			Same in a receive contra
Pe	Scaup Golden-eye						* * *			
	Buffle-head Ruddy duck			·		Section 1	12 2 2 2 3 3 4 B		un en en en en en en en en	
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	465 CT 1									

(July 1946)

	•	SUMMARIES	
Total Production:			
Geese	<u> </u>	Total waterfowl usage du	ring period 550
Duc ks 497		Peak waterfowl numbers	550
Coots	_	Areas used by concentrat	ions Pools 26 and 25
ANTALEMANASTA		!	
ogaletja er Ostoker ipov s		Principal nesting areas	this season Above Batchtown
्रिक्षिति र्वेष्ट्रिका वज्रवर्षे । । १९४८ स्टब्स्ट्रिका		olosed area.	
Andria Rance Taprocesia		Reported by	Edward A. Davis
Tropics and		•	
ett og tillgatt og overe.	INST	RUCTIONS	
(1) Species:	reporting period should be ac	ded on form, other species occided in appropriate spaces. Stal and National significance.	pecial attention should be
(2) First Seens	The first refuge record for t period, and the number seen.	the species during the season This column does not apply t	concerned in the reporting oresident species.
(3) Peak Concentra-	The greatest number of the sp	pecies present in a limited in	terval of time.
(4) Last Seens	The last refuge perand for the period.	ne species during the season of	oncerned in the reporting
(5) Young Produced:	sentative breeding areas. B	oduced based on observations a rood counts should be made on Estimates having no basis in	two or more areas aggregating
(6) Total:	Retimated total number of the may or may not be more than to of the migrational movement.	e species using the refuge <u>dur</u> that used for peak concentrati	ing the period. This figure ons, depending upon the nature

Note: Only columns applicable to the reporting period should be used. It is desirable that the <u>Summaries</u> receive careful attention since these data are necessarily based on an analysis of the rest of the form.

3-1751 Form NR-1 (Nov. 1945)

MIGRATO BIRDS
(other than waterfowl

Refuge Calhoun, Batchtown

(other than waterfowl)
..... Months of May

to August, 19

(1) Species (2) First Seen (3) Peak Numbers (4) Last Seen (5) Production (6) Total Number | Total # | Colonies | Nests Total Estimated Common Name Number Date Number Date Date Colonies Number Young Number I. Water and Marsh Birds: 5/2 5/2 Blue heron 8/10 8/10 8/11 8/11 150 20 Egrous 600 600 II. Shorebirds, Gulls and Gulls 5/2 5/2 200 5/15 5/15 8/11 8/11 500 4 Terns 50 800 25 (over)

	(1)	(2)	1 1:	3)		`.)		(5)		(6)
	(1)	1	_							
III. D	oves and Pigeons:									
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ÍУ. <u>Р</u> G	redaceous Birds: Colden eagle					<u>.</u>	1	i,		* 1
. D	luck hawk					;				
н	forned owl		- }	i		1	<u> </u>			
	Magpie Raven		1		;		· ·			** ***
	Crow	here all year			·			<u> </u>		10,000
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INSTRUCTIONS

(1) Species:

Use the correct names as found in the A.O.U. Checklist, 1931 Edition, and list group in A.O.U. order. Avoid general terms as "seagull", "tern", etc. In addition to the birds listed on form, other species occurring on refuge during the reporting period should be added in appropriate spaces. Special attention should be given to those species of local and National significance. Groups: I. Water and Marsh Birds (Gaviiformes to Ciconiiformes and Gruiiformes)

II. Shorebirds, Gulls and Terns (Charadriiformes)

III. Doves and Pigeons (Columbiformes)

IV. Predaceous Birds (Falconiformes, Strigiformes and predaceous Passeriformes)

(2) First Seen:

The first refuge record for the species for the season concerned.

The greatest number of the species present in a limited interval of time. Peak Numbers:

(4)Last Seen: The last refuge record for the species during the season concerned.

(5) Production:

Estimated number of young produced based on observations and actual counts.

(6) Total:

Estimated total number of the species using the refuge during the period concerned.

3-1752 Form 2-2 (April 1946)

Refuge_

Calhoun, Batchtown

PLAND GAR BIRDS

Months of

May sto August, 19/50

(3) (4) (7) (5) (6)(2) (1) dagi sup**pensity** w mest set Taki of godinaland setsogi Young Produced Sex Remarks Total . Removals Species Ratio For Restocking Estimated **្ស នេញ ១**១៤៦ ព្រះម 1. 15 B in a tropical dere Pertinent information not number Acres: specifically requested. using . per ាប់លោក សិក្សា Cover types, total Refuge List introductions here. acreage of habitat Bird Percentage: Common Name (ประเทศได้รถ (โ.ศ.ค.ศัลส์ส์ i drawyg ruit belyd La 112 1 63.63 Nothing to report sunder: this . The colo 10.00 nai j 40 VOL. ಮುಖ್ಯ ಗರ್ಷಕ್ರ

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INSTRUCTI ...

Form NR-2 - UPLAND GAME BIRDS.*

(1) SPECIES:

Use correct common name.

(2) DENSITY:

Applies particularly to those species considered in removal programs (public hunts, etc.). Detailed data may be omitted for species occurring in limited numbers. Density to be expressed in acres per animal by cover types. This information is to be prefaced by a statement from the refuge manager as to the number of acres in each cover type found on the refuge; once submitted, this information need not be repeated except as significant changes occur in the area of cover types. Cover types should be detailed enough to furnish the desired information but not so much as to obscure the general picture. Examples: spruce swamp, upland hardwoods, reverting agriculture land, bottomland hardwoods, short grass prairie, etc. Standard type symbols listed in Wildlife Management Series No. 7 should be used where possible. Figures submitted should be based on actual observations and counts on representative sample areas. Survey method used and size of sample area or areas should be indicated under Remarks.

- (3) YOUNG PRODUCED:
- Estimated number of young produced, based upon observations and actual counts in representative breeding habitat.
- (4) SEX RATIO:
- This column applies primarily to wild turkey, pheasants, etc. Include data on other species if available.
- (5) REMOVALS:
- Indicate total number in each category removed during the report period.
- (6) TOTAL:
- Estimated total number using the refuge during the report period. This may include resident birds plus those migrating into the refuge during certain seasons.
- (7) REMARKS:
- Indicate method used to determine population and area covered in survey. Also include other pertinent information not specifically requested.
- * Only columns applicable to the period covered should be used.



CALHOUN AND BATCHTOWN REPUGES NARRATIVE REPORT SEPTEMBER, OCTOBER, NOVEMBER, DECEMBER, 1950

I. GENERAL

A. Weather Conditions:

The maximum temperature during this period was higher in every month except December, 1949. The minimum temperature was lower in every month except October, 1949. Bainfall was 4.63 less this period, compared with the same period last year.

Relative readings are shown below:

Month	Year	Maximum	Minimum	Precipitation
September	194 9	89	39	3.51
	1950	91	36	1.77
Cotober	1949	87	29	6.22
	1950	90	35	.98
Hovember	1949	80	2!!	trace
	1950	88	3	2.69
December	1949	70	15	1.14
1	1950	68	2	-80
			1949 Tota	
			1950 Tota	L 6.24

B. Water Conditions:

River stages were about the same as last year, with no big changes occurring during the period. Fluctuations this year happened during the first of the week instead of week-ends, as was the case last year. This was better for fishermen, but hunters complained as usual.

The comparison of pools with the same period in 1949 is: shown below:

Month	Year	High	Low	Difference
September	1949	15.3	14.4	.9
_	1950	15.4	14.0	1.4
October	1949	15.5	14.4	1.1
	1950	15.4	14.6	
Movember	1949	15.2	14.5	.8 .7
_	1950	1.5 . 1	14.5	-6
December	1949	15.2	14.4	-8
	1950	15.1	14.3	.8



Maximum monthly variation in 1950 was 1.4, compared with 1.1 in 1949.

II. WILDLIFE

A. Migratory Birds: 1. Populations and Behavior: (a) Waterfowl:

Ducks started to come into the area on September 11 in fair numbers. Blue-wing teal were here in good numbers by August 25, which was earlier than usual. Some pintail showed up on September 20, and the peak concentration occurred November 19, compared with December 18 last year. The peak concentration last year was 400,000, compared with this year's peak concentration of 150,000. This year we had two cold waves during the hunting season, and ducks were pushed out and did not pile up in refuge areas as in other years. The Batchtown area peak concentration was 79,400, compared with last year?s peak of 100,000. Ducks did not feed in cornfields as much as last year, and those that did would not come out until after Hunters complained that ducks were harder to shooting hours. decoy this year.

(b) Geese:

Canada geese started to come into refuge areas on October 9, compared with September 6. Last year's peak war on September 20, with 500, compared with this year's peak of 200 on November 12.

Blue and snow goese showed a decrease this year, with a peak concentration of 4,000 birds on Hovember 12, compared with last year with 10,000 birds on December 13. By December 7 all goese had left the area.

(c) Swans:

None were observed.

(d) Bgrets:

Egrets were here in goodly numbers during the early fall. The peak concentration was August 23, with about 800 birds in the area. Soon after the hunting season opened up, most all birds pulled out. I would say that egrets are increasing in this area.

(a) Shorebirds and Other Water Birds:

Wilson snips seem to be down some this year, when not as many were observed as last year. Last year 100 were observed, compared with 50 this year. Allideer showed some increase over last year, and about 400 were seen.

2. Food and Cover:

Food and cover was about the same as last year in both areas. There were ample amounts present for the season was short; that is, the concentration of ducks using the closed areas lasted a shorter period compared with other years due to the cold waves during the period. Ducks did not use cornfields as much as last year, indicating that they were getting feed on the refuges. There should be plenty for the spring flight.

B. Upland Game Birds:

No upland game birds are present on either the Calhoun or Batchtown areas.

There is ample food and cover present on both areas to sustain fair numbers of upland game, but for some reason none of these birds use the areas.

C. Big Game Animals:

No big game animals are present on either area.

D. Fur Animals: (a) Muskrats:

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Muskrats have increased some in the areas, but the limited habitat area is not conducive to much of an increase in muskrats.

(b) Mink:

Trappers that trap in open areas say mink are about the same as last year. Some have been caught, but most all lakes are frozen up, and trappers report that there will be plenty left after this season.

(o) Skunk:

We sign of this specien is noted in refuge areas as the land is too low for dens.

(d) Beaver:

It is thought that beaver are increasing in this area. There are signs of them on most islands along the Mississippi and Illinois Rivers.

(e) Otter:

None here.

(f) Raccoon:

A good number of raccoon are being caught along the Illinois and Mississippi Rivers. Trappers say they don't want them, but when they set traps for mink they got a raccoon. Raccoon appear to be holding strong compared with last year.

(g) Foxes:

Foxes are about the same as last year, and are plentiful in all areas.

(h) Others:

Nothing under this.

E. Predaceous Birds:

Bagles were here in good numbers, and about the same numbers were observed as last year. It is estimated that 25 are present. Hawks are about the same as last year. Redtailed are observed almost every day. I would say this species is holding its own. Owls in the timbered areas were more plentiful than last year.

F. Fish:

Fishing was a little better than last year and goodly number of crappie, bluegill, and bass were taken. Fishing pressure was greater this year than last year. All boat liveries had a good year.

IV. ECONOMIC USE OF REFUGE

E. Other Uses:

Eight permittees for sharecropping report results as follows:

The state of the s

Permittee Permit Acres share Govt. share Permittee. 30 corn 360 120 left-field John Sherman 113 120 60 left-field W.F. Duncan 110 6 corn 8 beans 23,49 7.83 sold John Held 159 August Toppmeyer 40 sold 158 10 beans 120 Henry C. Weigel 112 20 com 375 125 sold Joe Navarre 114 6 corn, not through yet Robert La Marsh 111 6 beans, not through yet 160 Harry G.Binslager 80 beans & corn, not through yet Total permittems share corn 855 180 left-field Total permittees share beans 145.49 172.83 sold

The Government's share was sold for \$210.95 and money orders were sent to the Winons office.

VI. PUBLIC RELATIONS

A. Recreational Uses:

Lots of boating and picnicking was observed on the Mississippi and Illinois Rivers. A lot of fishing was also done on these rivers this fall, with fair results,

B. Refuge Visitors:

Dr. W. E. Green was here during the first few days of the hunting season, checking on hunting pressure and making bag checks.

C. Refuge Participation:

On October 17 the Refuge Manager attended a conference with War Department and Fish and Wildlife Service personnel from the main office, Mr. Steele from the Winona office, and Regional Office personnel.

D. Hunting:

The hunting was not so good this year due to two cold waves that kept the lakes frozen up about two weeks. This kept a lot of hunters out of the field. The last two weeks of hunting was confined to the river channel. The total number of hunters in all the areas checked was 8059, compared with 8695 last year. The total number of ducks killed this year was 8999, compared with last year's 12,905.

Duck Hill checks are shown below: Batchtown Area Hunters in field 1512 Hunters checked. 1512 Ducks in bag checked 2189 Av. ducks in bag 1.4 Total ducks killed in area 2189 Stump Lake Area Hunters in field 5992 Hunters ehecked. 1419 No. ducks checked. 1409 Av. bag per hunter 0.99 Estimated total killed 5951 Diamond Island No. hunters in area 184 No. hunters checked 184 No. dusks checked 257 Av. bag per hunter. 1.5 Estimated total kill. 257 Reds Landing Club-Blackwell No. hunters in area 106 No. hunters checked 108 No. ducks checked 202 Av. bag per hunter. 1.9 Estimated total kill. 202 Gilead Club No. hunters in area 68 No, hunters checked 68 No. ducks checked 200 Av. bag per hunter. 2.9 Estimated total kill. 200

Bachelor Club (south of Gilead Club)

No.	hunters	in area	. •	•		•	•	•	•	•	٠	•	197
No.	hunters	checked	٠		٠	•	٠		٠	•	•	•	197
No.	ducks c	heeked .	•		٠	٠	٠	٠	•	٠	•	•	Z20
Av.	bag per	hunter.		•	•	٠	•	٠	•	•	•	•	1.1
Ret	imated to	otal kil	1.	•	•			•	•	•	٠	•	Z 20

E. Fishing:

-

Pass, crappies and bluegill were fair through the fall up to November 5. Most fishing stopped then.

Commercial fishing was just fair this fall, with no big catches reported. Most of them have quit for winter as there is too much ice.

P. Violations:

Two cases were turned over to State wardens and settled in State court. Total fines were \$50.00, with costs of \$8.00.

Superintendent of Refuges

January 10, 1951

Approved January 12, 1951 (Date)

Acting Regional Director

WATERFOWL

Calhoun Refuge

/ 物质 电影

Coot:

IV.

Months

September

19 60 to December.

(6) (5) (4) (3) (2) $\overline{(1)}$ Total Young Produced Last Seen Peak Concentration First Seen Species Estimated Estimated Broods for period Total Date Seen Number Date Number Date Common Name Mumber: Swans: Whistling swan 250 Geese: 12/1 100 10/9 200 11/12 15 Canada goose Cackling goose Brant White-fronted goose 2,500 12/1 2,000 11/12 2,000 10/9 10 2,500 Snow goose 2,000 12/1 2,000 11/12 10 10/9 Blue goose Ducks: 187,600 III. 12/1 12/1 11/19 99,000 156,000 9/13 25 2,000 Mallard 11/12 11/12 200 10/6 1,000 100 Black duck 500 11/12 11/29 12/1 200 10/9 200 28 3,000 Cadwall 2,000 11/6 2,000 500 16,000 Baldpate 250 11/12 9/20 10,000 20 Pintail 1,000 12/1 160 10/30 000 150 Green-winged teal 10,000 60 11/12 8/23 6,000 10/9 500 Blue-winged teal Cinnamon teal Shoveller 2,500 11/12 25 2,000 8/23 8/23 2,000 Wood duck Redhead Ring-necked duck 100 22/1 50 12/1 12/1 50 50 Canvas-back 10,000 12/1 12/1 11/19 100 (30 (1) 5,000 200 150 Scaup 12/1 100 100 100 Golden-eye Buffle-head 150 11/3 10/16 100 11/3 100 25 Ruddy duck 9,000 11/19 150 10/16 10/9 7,000 2,000

(over) 3-1750 (Sept.1950) Interior - Duplicating Section, Washington, D.C. 82449 Form NR-1

	: .										
Date	s wate	erfowl counts made	·	· · · · · · · · · · · · · · · · · · ·	Total waterfowl usage during period	237.250					
Perc	ent of	f waterfowl area	covered	· · ·	Feak waterfowl numbers	167,250					
Date	s broo	od counts made			Areas used by concentrations Swan and Gilbert Lakes						
Perc	ent of	f area covered in	brood counts								
Tota	l proc	luction;	:	3	Principal nesting areas this season						
•	Geese	•	-			·					
	Ducks	• • • • • • • • • • • • • • • • • • •	_	,	•						
	Coots	. <u> </u>	•	,	· · · · · · · · · · · · · · · · · · ·						
			reporting period s given to those spe The first refuge r period, and the nu	should be ad scies of loc record for t mber seen.	ed on form, other species occurring on reded in appropriate spaces. Special atternal and National significance. the species during the season concerned in this column does not apply to resident	ntion should be n the reporting species.					
	(3)	Peak concentration:	The greatest number	er of the sp	ecies present in a limited interval of t	ime.					
:	(4)	Last seen:	The last refuge reperiod.	cord for th	e species during the season concerned in	the reporting					
	Coots Co				duced based on observations and actual cood counts should be made on two or more Estimates having no basis in fact should	areas aggregating					
· ·	Ducks Coots In addition to the birds reporting period should be given to those species of period, and the number set tration: (4) Iast seen: The last refuge record for period. (5) Young produced: Estimated number of young sentative breeding areas. 10% of the breeding habit (6) Total: Estimated total number of setting total number of setting areas.				species using the refuge during the perhat used for peak concentrations, depend	tiod. This figure ling upon the nature					

Note: Only columns applicable to the reporting period should be used. It is desirable that the Summaries ceive careful attention since these are necessarily based on an Alysis of the rest of the fc.

SUMMARIES

WATERFOWL

Refuge Batchton Months September to December 19 50

	(1) Species	(; First	2) Seen	(3 %sak Conc) entration	(4 Last		Young P		(6) Total
	Common Name	Momber	Date	Number	Date	Number	Date	Broods Seen	Estimated Total	Estimated for period
ī.	Swans: Whistling swan									ener T
II.	Geese: Canada goose Cackling goose Brant	100	10/27	100	10/27	100	10/27		1 - 1 1 1 1 1 1 1 1 1	100
	White-fronted goose Snow goose Blue goose		: .							
	DTOS KOOS O		,				•			•••
III.	Ducks: Mallard Black duck Cadwall Baldpate Pintail Green-winged teal Blue-winged teal Cinnamon teal	25 1,000 20 200 100 300 3,000	9/10 10/27 16/9 10/9 10/9 11/2 10/9	20,000 1,000 100 4,000 50,000 500 3,000	11/2 10/27 11/2 11/2 11/2 11/17 10/9	3,009 50 100 300 3,000 500 100	11/17 11/27 11/2 11/17 11/17 11/17			20,000 1,000 100 4,000 50,000 500 3,000
,	Shoveller Wood duck Redhead Ring-necked duck	500	8/23	500	8/23	10	11/14			500
·	Canvas-back Scaup Golden-eye Buffle-head	200	11/2	200	11/14	50	11/17			200
	Ruddy duck						1			
IV.	Coot:	500	10/9	5,000	11/2	100	11/14			5,000

3-1750 (over)
(Sept.1950) Interior - Duplicating Section, Washington, D.C. 82449

Form NR-1

(. 1823) 1 1 3 40			SUM	RTES	
Dates	waterfowl counts made It of waterfowl area covered brood counts made It of area covered in brood counts production: Geese Ducks (1) Species: In addition to the birds l reporting period should be given to those species of (2) First seen: The first refuge record for period, and the number seed period, and the number seed tration: (4) Iast seen: The last refuge record for period. (5) Young produced: Estimated number of young sentative breeding areas. 10% of the breeding habit			Total waterfowl usage during	g period
Percen	t of	waterfowl area c	overed	Peak waterfowl numbers	•
				Areas used by concentration	s Batchtown closed area
Percer	rt of	area covered in	brood counts		
Total	prod	uction:		Principal nesting areas thi	s season
_			• •	Reported by	Edward A. Davis
ere e	(2) (3)	First seen: Peak concen-	In addition to the birds listed reporting period should be added given to those species of local. The first refuge record for the period, and the number seen. The greatest number of the species.	and National significance. a species during the season of this column does not apply to	oncerned in the reporting resident species.
• •. .)	(4)	Iast seen:	-		
	(5)	Young produced:	Estimated number of young produced sentative breeding areas. Broad of the breeding habitat.	estimates having no basis in	fact should be omitted.
	(6)	Total:	Estimated total number of the may or may not be more than the of the migrational movement.	species using the refuge duri at used for peak concentration	ng the period. This figure ms, depending upon the nature
Note	: ~	ly columns applic ceive careful att	able to the reporting period sho ention since these 2 are nec	arily based on an lysis	of the rest of the fc

3-1751 Form NR-_a (Nov. 1945)

MIGRATORY DIRDS

(Other than waterfowl)

Months of September to Logenber 195.0. Refuge Calhoun

(1) Species	(2) First Seen	(3) Peak Numbers	(4) Last Seen	(5) Productio	n (6)
Common Name	Number Date	Number Date	Number Date	Number Total # Colonies Nests	
I. Water and Marsh Birds: Blue heron Egrets Cornerants	150 8/25 100 8/14 20 10/1	150 5/25 800 6/25 500 11/4	1 12/1 20 11/4 5 11/20		
II. <u>Shorebirds, Gulls and</u> <u>Terns</u> :					
Gulle Killdeer Wilson snipe	25 50 9/11 9/11 9/11	1000 400 50 10/16 11/2	1000 12/1 10 12/1 12 11/20		
		(over)			e de la companya della companya della companya de la companya della companya dell

	<u>(1)</u>	(2)(7)	(3)	- F	(5)	(6)
III.	Doves and Pigeons: Mourning dove White-winged dove					
	(4) (4) (4)					
IV.	Predaceous Birds: Golden eagle Duck hawk					
	Horned owl Magpie					Water to
	Raven Crow	here all year ar	ound			
•						
				Reporte	d by	
i.			INSTRUCTIONS	A O II Chaoleliat	1031 Edition and list group	m in A.O.H
	OI fr	der. Avoid general	l terms as "seagul" occurring on refug	l", "tern", etc. e during the repor	1931 Edition, and list grow In addition to the birds li- ting period should be added use species of local and Nat	isted on Lin appro-

significance. Groups: I. <u>Water and Marsh Birds</u> (Gavilformes to Ciconliformes and Grullformes)
II. <u>Shorebirds</u>, <u>Gulls and Terns</u> (Charadrilformes)

IV. Predaceous Birds (Falconiformes, Strigiformes and predaceous

III. Doves and Pigeons (Columbiformes)

The first refuge record for the species for the season concerned.

The greatest number of the species present in a limited interval of time.

Estimated number of young produced based on observations and actual counts.

Estimated total number of the species using the refuge during the period concerned.

The last refuge record for the species during the season concerned.

(2) First Seen:

(4) Last Seen:

(5) Production:

Interior-Duplicating Section, Washington, D. C.

(6) Total:

(3) Peak Numbers:

Passeriformes)

3-175 Form 2 (April 1946)

UPLAND GAN BIRDS

1613

Refuge Calhoun Months of September to December , 19450

(1) Species	(2) Density	(3) Young Produced	(4) Sex Ratio	(5) Removals	(6) Total	(7) Remarks
Common Name	Cover types, total per acreage of habitat Biro	후 호-기급 명	Percentage	Hunting For Restocking For Research	Estimated number using Refuge	Pertinent information not specifically requested. List introductions here.
	Nothing to report un					

INSTRUCT AS

Form NR-2 - UPLAND GAME BIRDS.*

(1) SPECIES: Use correct common name.

Applies particularly to those species considered in removal programs (public hunts, etc.). Detailed data may be omitted for species occurring in limited numbers. Density to be expressed in acres per animal by cover types. This information is to be prefaced by a statement from the refuge manager as to the number of acres in each cover type found on the refuge; once submitted, this information need not be repeated except as significant changes occur in the area of cover types. Cover types should be detailed enough to furnish the desired information but not so much as to obscure the general picture. Examples: spruce swamp, upland hardwoods, reverting agriculture land, bottomland hardwoods, short grass prairie, etc. Standard type symbols listed in Wildlife Management Series No. 7 should be used where possible. Figures submitted should be based on actual

observations and counts on representative sample areas. Survey method used and size of sample area or areas should be indicated under Remarks.

(3) YOUNG PRODUCED: Estimated number of young produced, based upon observations and actual counts in representative breeding habitat.

(4) SEX RATIO: This column applies primarily to wild turkey, pheasants, etc. Include data on other species if available.

(5) REMOVALS: Indicate total number in each category removed during the report period.

(6) TOTAL: Estimated total number using the refuge during the report period. This may include resident birds plus those migrating into the refuge during certain seasons.

(7) REMARKS: Indicate method used to determine population and area covered in survey. Also include other pertinent information not specifically requested.

* Only columns applicable to the period covered should be used.

Form NF

BIG O T

Refuge Calhoum Year 19/50

(1) Species	(2) Density	(3) Young Produced		(A	4) o v a	ls		(Los	5) ses	Inti	(6) roductions	(7) Estimated	(8) Sex Ratio
Common Name	Cover types, total Acreage of Habitat	Number	Hunting	For Re- stocking	Sold	For Research	Predation	Disease	Winter Losses	Number	Source	Total Refuge Population as of Dec. 31	Percentage
	Nothing to report t	nder this			•		•						
						:						•	•

1.614

Form NR-3 - BIG GAME

- (1) SPECIES: Use correct common name; i.e., Mule deer, black-tailed deer, white-tailed deer. It is unnecessary to indicate sub-species such as northern or Louisiana white-tailed deer.
- (2) DENSITY: Applies particularly to those species considered in removal programs (public hunts, etc.) exclusive of fenced herds. Detailed data may be omitted for species occuring in limited numbers. Density to be expressed in acres per animal by cover types. This information is to be prefaced by a statement from the refuge manager as to the number of acres in each cover type found on the refuge; once submitted, this information need not be repeated except as significant changes occur in the area of cover types. Cover types should be detailed enough to furnish the desired information but not so much as to obscure the general picture. Examples: spruce swamp, upland hardwoods, reverting agriculture land, bottomland hardwoods, short grass prairie, etc. Standard type symbols listed in Wildlife Management Series No. 7 should be used where possible. Figures submitted should be based on actual observations and counts on representative sample areas. Survey method used and size of sample area or areas should be indicated under Remarks.
- (3) YOUNG PRODUCED: Estimated total number of young produced on refuge.
- (4) REMOVALS: Indicate total number in each category removed during the year.
- (5) IOSSES: On the basis of known records or reliable estimates indicate total losses in each category during the year.
- (6) INTRODUCTIONS: Indicate the number and refuge or agency from which stock was secured.
- (7) TOTAL REFUGE
 POPULATION: Give the estimated population of each species on the refuge as of December 31.
- (8) SEX RATION: Indicate the percentage of males and females of each species as determined from field observations or through removals.

Remarks

Refuge Calhoun

Year 19**4/50**

Botulism	Lead Poisoning or other Disease
Period of outbreak	Kind of disease
Period of heaviest losses	Species affected
Losses: Actual Count Estimated	Number Affected Species Actual Count Estimated
(a) Waterfowl (b) Shorebirds (c) Other	
Number Hospitalized No. Recovered % Recovered	Number Recovered
(a) Waterfowl	Number lost
(b) Shorebirds	Source of infection
Areas affected (location and approximate acreage)	Water conditions
Water conditions (average depth of water in sickness areas, reflooding of exposed flats, etc.	Food conditions
Condition of vegetation and invertebrate life	Remarks None observed as yet.

Form Nicons

FISH

Refuge Calboun

Year 19**60**

1617

	Relative	Sport F	ishing	Commercia	l Fishing	Rest	ocking	T
Species	Abundance	Man days Fishing	Number Taken	No. of Permits	Pounds Taken	Number Stocked	Area Stocked	Number re- moved for Restocking
					,			HeacockTINg
iothise	to report	mden Abita				,••		
		MANUS ENIS.						
			·: . ·					
						.		
								en _{ge} e e

PLAN SS
(Marsh - Aquatic - Upland)

Year 194 50 Calhoun Refuge

Species	Location of Area Planted	Rate of Seeding or Planting	Amount Planted (Acres or Yards of Shoreline)	Amount & Nature of Propagules	Date of Plant- ing	Survival	Cause. of Loss	Remarks
	Hothin	; to report	mder this.					
			2	,				
						,		
. W				•		·	·	

TOTAL ACREAGE PLANTED:

Marsh and aquatic
Hedgerows, cover patches
Food strips, food patches
Forest plantings

1618

3-1758 Form NR-8 (April J.946

CORRECTED REPOR

CULTIVATED CROPS

Refuge Calhoun - Lower Pools Year 194 50 Permittee Unit Avg. Permittee's Government's Share or Return (If farmed by refuge Permit or Crops Yield Share Harvested Unharvested Compensatory personnel, so indicate) No. Loca-Grown Bu.Harper Services, or tion Acres vested Acre Acres Bu. Acres Cash Revenue John Sherman 113 30 cores COLL 16 300 120 W. F. Dummen 110 6 agres COLL 50 180 60 John Held 100 25.49 8 mores 7-83 henne 4 August Toppmeyer Henry C. Weigel Joe Mavarre 158 10 sores 16 beans 120 10 112 20 acres COTT 25 125 375 Not through yet 114 6 sores COLIN Rebert La March Note through wet 111 ő agres beans Harry C. Binslager 160 38 *cores* Not through yet beans 42 acres 00138

Summary of Crops Grown:

Crop

Acreage

Permittee's Share Acres Bushels

Government's Share

Acres

Unharvested

Bu.

Total Revenue 210.95

125

Yield figures not included above.

Bu.

Harvested .

Acres

DIRECTIONS FOR PREPARING FORM NR-8 CULTIVATED CROPS

Cultivated Crops Report Form NR-8 should be prepared on a calendar-year basis for all crops harvested or utilized during the calendar year and submitted with the December 31 refuge report.

<u>Permittee</u> - List each permittee separately. If lands of the refuge are farmed by refuge personnel or hired labor, this should be indicated in the <u>Permittee</u> column.

Permit No. - List the number of the Special Use Permit issued to the in-

<u>Use or Location</u> - The Unit No. or name specified in the Economic Use Plan (should be listed in this column.

<u>Crops Grown</u> — A separate line of the form should be used for each crop grown by each permittee or by refuge personnel. This is important, since if each crop grown by each operator is not specifically enumerated, the report will be of no value for statistical purposes.

. Average Yield per Acre - It is important that the average yield per acre of each crop grown by each operator should be shown.

Permittee's Share - Only the number of acres harvested or utilized by the permittee for his own benefit should be shown under the <u>Acres</u> column, and only the number of bushels of farm crops harvested by the permittee for himself should be shown under the <u>Bushels Harvested</u> column. It is requested that all crops harvested be reduced to bushels wherever possible, or, as in the case with the harvesting of seed such as that of sweet clover, alfalfa, bromegrass, etc., the total harvested crop in pounds may be shown. Timothy, alfalfa, or other hay harvested by the permittee should be shown on Form NR-10 and should not be shown in the <u>Permittee's Share</u> column.

Government's Share or Return - Harvested - Show the number of bushels harvested for the Government and the acreage from which this share is harvested, both for grain raised by refuge personnel and by permittees. <u>Unharvested</u> - show the exact number of acres of crops allowed to remain unharvested as food and cover for wildlife. An estimate of the number of bushels of grain that is available for the wildlife in such unharvested crops should be shown in the <u>Bushels</u> column.

Compensatory Services, or Cash Revenue - Show other services received by the Government in cooperative farming activities, the number of acres of food strips planted for wildlife, the amount of wildlife crops not otherwise reported that are planted by cooperators for the Service, or the cultivation of wildlife plantations. If the permit is on a fee basis, the total cash revenue received by the Service.

3-175 Form NR 5 (April 1946) COLLECTION AND RECEIPTS OF PLANTING STOCKS (Seeds, rootstocks, trees, shrubs)

Refuge Calhoun Year '19/50:

<u> </u>	<u> </u>	-Coll	ections		Rece	ipts		
Species	Amount	Date or Period or Collection	Method	Unit Cost	Amount	Source	Total Amounts on Hand	Amount Surplus
		eport under thi			•	ļ.	Ì	\$ 1.7°
	ening to r	port unor ena		•	r			}
					·			
				•				
				•	,			
	. :				,			

3-1760 Form NR-10 (April (1866)

HAYING AND GRAZING

Voor 19

Refuge...Calboun...

Year 19**450**

Permittee	Permit No.	Unit or Location	Actual Acreage Utilized	Use	Tons of Hay Har- vested	Period of	Use To	Rate	Total Income	Remaiks
	Fothing	to report	nder this	•						
								; ;		
										·
,} ·										

TΩ	+2	٦	a	٠

Acreage grazed.....

Animal use months.....

Total income Grazing.....

Acreage cut for hay.....

Tons of hay cut.....

Total income Haying.....

-

3-1761 Form NR-

TIMBER

Year 19/ 50

Permittee	Permit No.	Unit or Location	Acreage	No. of Units Expressed in B. F., ties, etc.	Rate of Charge	Total Income	Reservations and/or Diameter Limits	Species Cut
	Nothing to re	port under	this.					

Total acreage cut over	Total income						
No. of units removed B. F	Method of slash disposal						